DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026469
Date Inspected: 04-Oct-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name:	As noted			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Component

Summary of Items Observed:

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:
East Line

This QA randomly observed ABF/JV qualified welder Todd Jackson #4639 performing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-F1220A. The joint welded was two (2) 6mm fillet welds to install 1605mm of drip rail. This work was located at the Lift 12E, E6 line and was performed in the overhead position from the outside of the “B” deck plate.

During welding, ABF Quality Control (QC) Steve McConnell was noted monitoring the welding parameters. Welding parameters were recorded as (A=115).

This QA randomly observed ABF/JV qualified welder Salvador Sandoval #2202 performing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1010. The joint being welded is a 20mm plate insert at the “A” deck to close a man way deck penetration hole. This work was located at 8E-PP70.5-E5 NE/TS and was performed in the overhead position from the bottom of the “A” deck plate.

During welding, ABF Quality Control (QC) Steve McConnell was noted monitoring the welding parameters. Welding parameters were recorded as (A=123).

This QA randomly observed ABF/JV qualified welder Fred Kaddu #2188 performing Shielded Metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1110A-R1. This was a Complete Joint Penetration (CJP) weld on a 14mm plate insert at the “A” deck to close the lifting lug deck penetration holes. This work was located at E3-PP100-L#1&3 and was performed in the overhead position from the bottom of the “A” deck plate.

During welding, ABF Quality Control (QC) Steve McConnell was noted monitoring the welding parameters. Welding parameters were recorded as (A=126).

This QA randomly observed ABF/JV qualified welder Jorge Lopez #6149 performing Shielded Metal Arc Welding (SMAW) with 3/16" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU. The joint being welded was a 20mm plate insert at the “A” deck to close the lifting lug deck penetration holes. This work was located at E4-PP115-L#2 and was performed in the flat position from the top of the “A” deck plate.

During welding, ABF Quality Control (QC) Steve McConnell was noted monitoring the welding parameters. Welding parameters were recorded as (A=262).

12E/13E

This QA performed observation at random intervals of approved ABF welding personnel performing fit-up and Shielded Metal Arc Welding (SMAW) of temporary attachments at the “D” bottom plate of 12E/13E segment splice.

In conjunction with QC William Sherwood this QA performed a visual survey of joint fit-up for the 35mm thick section of the “D” bottom plate of 12E/13E segment splice. Taking measurements at locations between open rib stiffeners with an iGuage digital caliper gauge it was observed that the root opening varied between 10.5mm ~ 14. 5mm. The bevel angle measurements were taken from both the 12E and 13E plates and were found to range from 180 ~ 380.

In addition, this QA and QC Sherwood also measured the planar offset of this section of the joint. Below are areas of measurement that were noted to be 2mm or more.

D1

Y = 5000mm, offset = 2.5mm

D2

Y = 700mm, offset = 2mm
Y = 1000mm, offset = 3mm
Y = 1500mm, offset = 2mm
Y = 2425mm, offset = 2mm
Y = 2830mm, offset = 3mm
Y = 3150mm, offset = 3mm
Y = 3650mm, offset = 3mm
Y = 4310mm, offset = 3mm

Welding operations at this joint have not been started at this time.

Approximately 1500 QA Lead Daniel Reyes presented this QA with Caltrans “Approved As Noted” weld details

and “General Notes for Temporary Attachments on the Permanent Structure” for the welding of “temporary attachments” referenced in this QA’s TL-6031 dated 10/01/11. Weld sizes and locations of these temporary attachments appeared to comply with these supplied documents.

This QA verbally informed QA SPCM Lead, Daniel Reyes, of the issues noted in this report for compliance. For further details of issues of significance see QA SPCM Lead, Daniel Reyes, “Daily Inspection Report” (TL-6031) submitted for this date.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Clifford,William	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer